

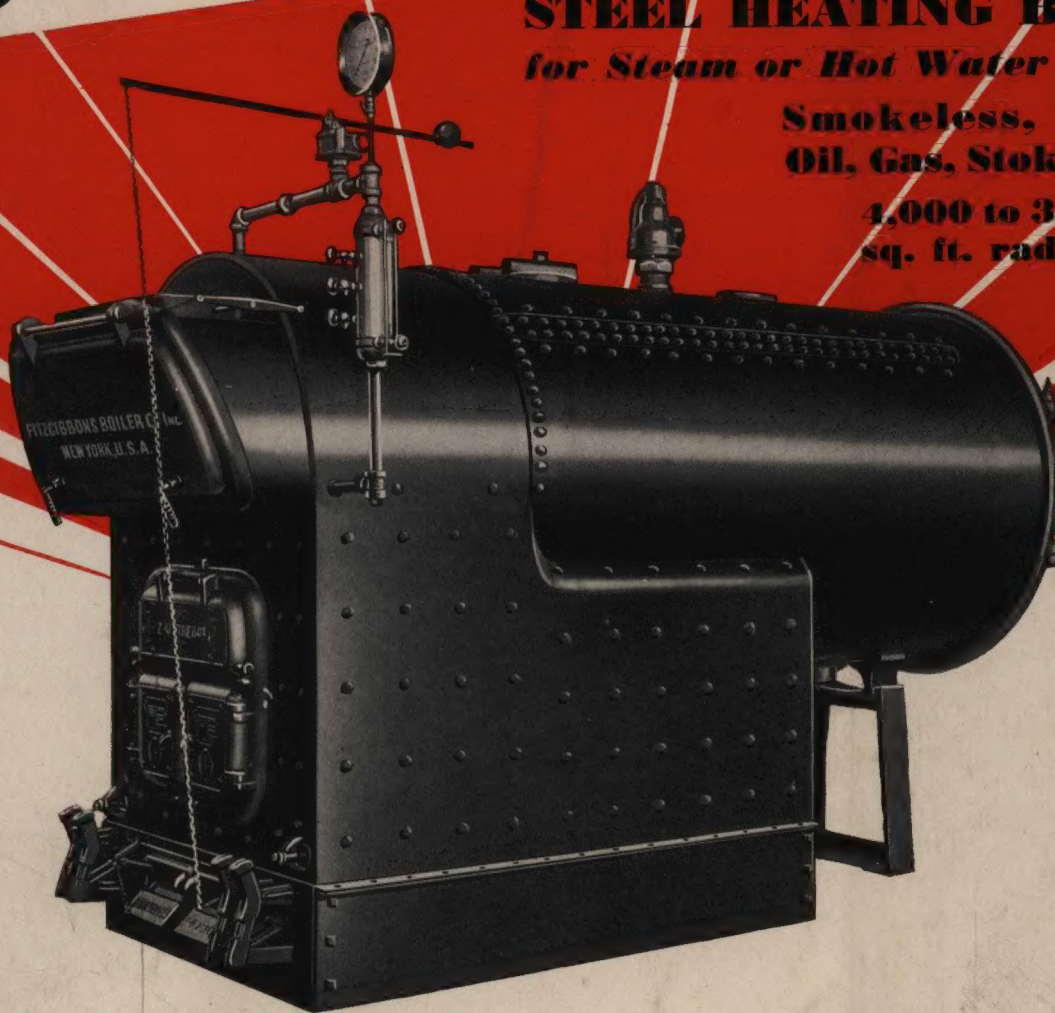
Z U FIREBOX BOILER

STEEL HEATING BOILER

for Steam or Hot Water Heating

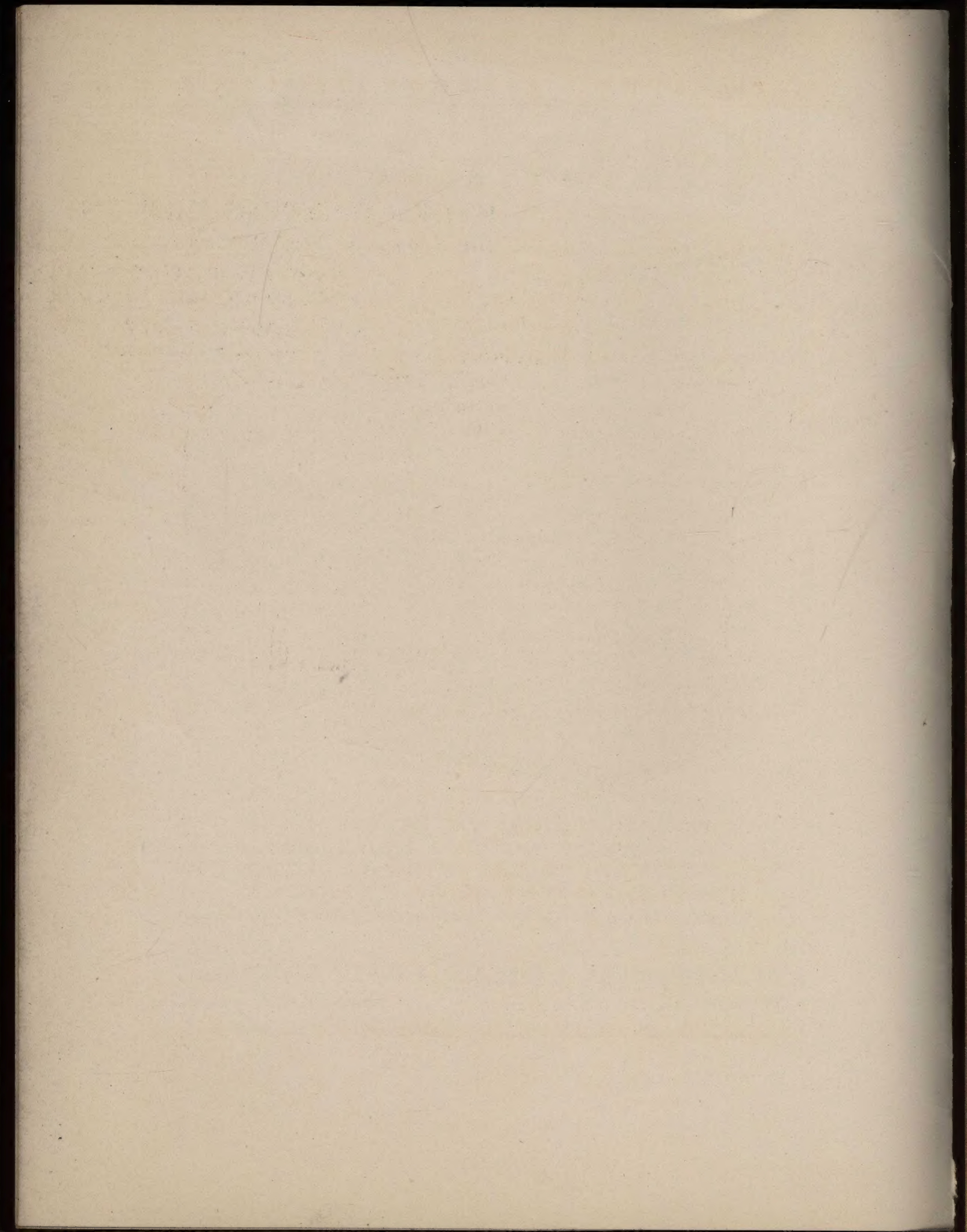
**Smokeless, Updraft
Oil, Gas, Stoker Types**

**4,000 to 34,000
sq. ft. radiation**



**A radically different firebox boiler
with patented features which assure
IMPROVED COMBUSTION—FASTER,
MORE EFFICIENT HEAT TRANSFER.
Result: *More steam at substantially lower cost***

FITZGIBBONS BOILER COMPANY, Inc.
570 Seventh Ave., **New York, N. Y.**



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The ZU is a **DIFFERENT** Firebox Boiler

THE ZU Steel Firebox Boiler is a definite departure from the conventional firebox boiler design. It is a distinct advance in firebox boilers in the two fundamental factors which determine boiler performance,—combustion and heat transfer.

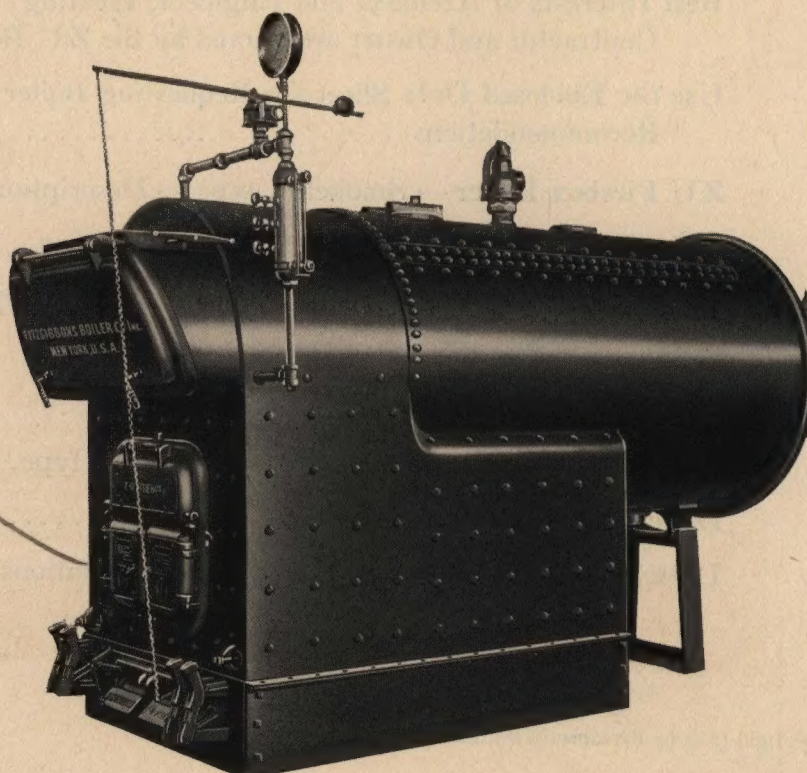
The ZU is a better firebox boiler because it adds to the time-tried-and-tested good points of the usual design a number of vitally important developments which (1) definitely improve combustion; (2) produce quicker, more complete heat transfer,—in other words, which give *more steam at substantially lower cost*.

This last statement has a familiar ring. It is easily made. But a consideration of the developments, which are explained in the following pages, makes clear that in the case of the ZU boiler it is no mere catch-phrase. These developments are founded on clean-cut scientific facts, the soundness of which can be readily understood and appreciated by anyone interested in boiler performance who reads these pages.

First examine the ZU from the standpoint of *combustion*.

Fig. 1

This view of the ZU Boiler shows plainly the clean-cut, compact design and construction. The boiler is steel-built throughout and more than meets A.S.M.E. Code and insurance inspection requirements. In workmanship it is unsurpassed. 44 years of boiler building have provided the knowledge, the skill and the facility which guarantee highest quality.



How **BETTER COMBUSTION** is Attained

Air and gases are thoroughly mixed

There are two essentials to *maximum* combustion efficiency:

(1) *Thorough mixing of the gases rising from the fuel bed, with secondary air*, so that all carbon monoxide (CO) remaining in these gases after they leave the fuel bed, will be burned to carbon dioxide (CO₂) before entering the tubes. In other words, so that combustion will be completed and the benefit of all the heat energy in the fuel will be secured.

(2) *The accomplishing of this complete combustion with the smallest possible amount of excess air*. There is a certain minimum of secondary air which will give complete combustion with a given fuel and furnace. Anything beyond this represents avoidable waste.

Obviously, if a *thorough mixing of secondary air and gases is assured*, the amount of excess air needed to complete combustion will be held to a minimum. This is exactly what is accomplished by the ZU design.

Look at the illustration on the next page. Note that the *fire tube cylinder extends into the firebox*,—a thing that has never before been done in firebox boilers. Once done, however, its valuable advantages become immediately apparent. The curved bottom of the cylinder with the gas arches on each side

(See Fig. 2) act as a baffle against which the gases mushroom toward the sides of the firebox and roll forward, turning upward against the front wall and converging at the point where secondary air is admitted.

Complete combustion with minimum excess air

During the course of this flow, along the top of the flames where heat is most intense, the gases cannot fail to be consumed very nearly to completion. And the turbulent sweep with which they whirl past the secondary air intake in the front just above the fire, insures an intimate mixing and complete combustion of what little percentage of CO may have succeeded in reaching this point unconsumed.

The diagrammatic view, Fig. 2, shows the complete circuit of the gases and makes clear the smooth flow and extra length of gas travel which the design brings about.

Fair and accurate tests under actual operating conditions prove beyond question that this construction accomplishes in practice what it promises in theory, namely, *complete combustion with minimum excess air*.

This feature alone, because of the fuel saving it effects, justifies selection of the ZU boiler. But it is only half the story.

Now consider this boiler from the standpoint of *heat transfer*.

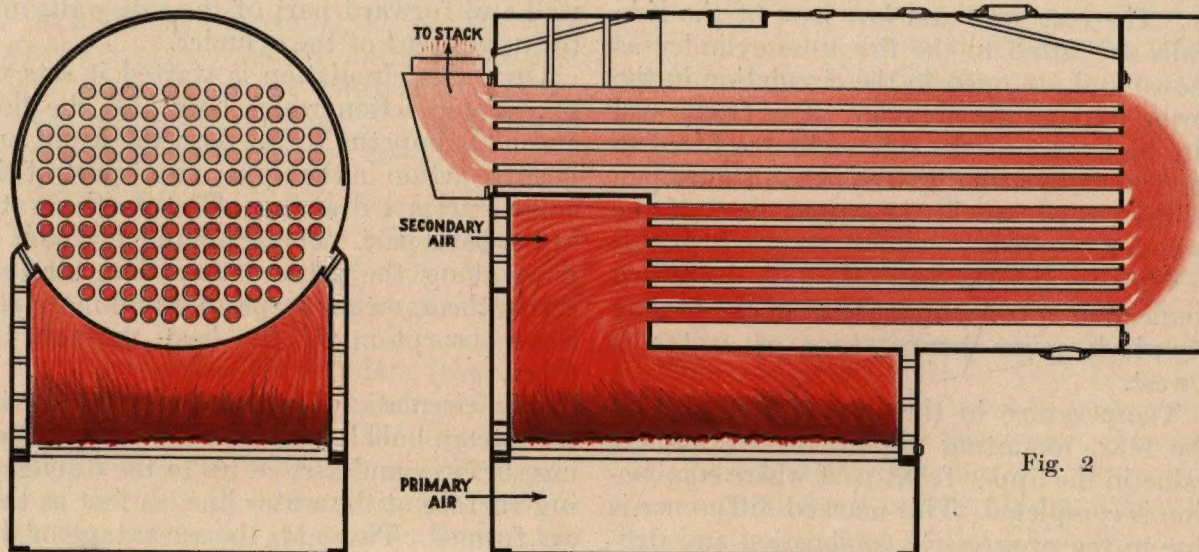


Fig. 2

How **FASTER, MORE EFFICIENT HEAT TRANSFER** is Secured

More effective distribution of heating surface

First: By a more effective distribution of the heating surface. A materially larger percentage of the heating surface is exposed to the direct heat of the fire and is located in the gas circuit where the heat is most intense. This is another valuable advantage of the exclusive feature of fire tube cylinder extending into the firebox.

Radiant Heat is completely absorbed

Second: Full benefit of the radiant heat is secured for two reasons: (1) the added percentage of primary or direct heating surface mentioned above; (2) the unusually large area of the water walls surrounding the combustion chamber.

Thermo-syphonic action gives most positive water circulation

Third: The decidedly positive and forceful water circulation due to the self-induced, thermo-syphonic action which is created by the design. The construction which produces this action and the nature of the action itself, are as follows:

Water walls form the firebox (See Fig. 3). The rear wall and low part of the side walls are fitted to the fire tube cylinder as shown and are open to the circulation in the lower part of the cylinder. The front wall and high part of the side walls are fitted to the upper fire tube extension and are open to the circulation in the upper part of the cylinder.

Water enters the boiler through the return connection in the cylinder back of the firebox at which point temperature of water is lowest.

Temperature in the firebox is lowest at the rear, mounting rapidly to its highest value in the upper front part where combustion is completed. This marked difference is due to the progressive combustion and defi-

nite flow of gases from rear to upper front established by the character of the firebox as already explained and is much higher than in the ordinary firebox boiler.

There is a correspondingly rapid temperature rise in the water in the walls from rear to upper front which sets up a swift circulation from the lower part of the cylinder down

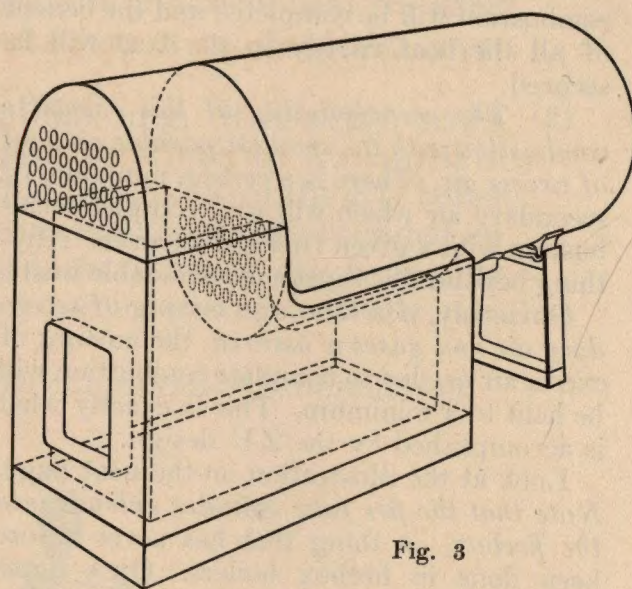


Fig. 3

into the rear and side water walls, around into the front wall and up through the front wall and forward part of the side walls into the upper part of the cylinder.

Once this circulation is started it sets up a syphonic action which both aids the flow and adds impetus to it. Also the rapid and positive action in the upper front part of the boiler exerts a drawing effect on the water in the back part. The resultant direction of flow, along the tubes rather than straight across them, means a speedier and more efficient absorption of the heat through the tubes.

The circulation is so strong and positive that steam bubbles are brushed off the heating surfaces and carried up to the disengaging surface at the water line, as fast as they are formed. This adds the advantage of dry

steam to that of efficient heat transfer. In fact this boiler will deliver remarkably dry steam when operating well above its rated steam output.

The circulation induced by this exclusively ZU thermo-syphonic action is unequalled in any other firebox boiler.

Exceptionally quick "pick-up" of the heating load

The ZU boiler will "pick-up" the heating load with exceptional speed. In other words when starting up it will bring the distribut-

ing system up to the required temperature in less time than is taken by ordinary boilers to perform this most important function.

The decidedly faster "pick-up" is the result of the more efficient combustion, the added percentage of direct heating surface, the more positive and vigorous water circulation, all of which have already been accounted for. In ZU-heated buildings there is no complaining about lack of heat in the early hours of the day and much coal is saved every day during the starting-up period.

Additional NOTEWORTHY FEATURES of the Z U Firebox Boiler

Meets all fuel requirements

The ZU boiler is built in the following three types:

Smokeless Type: for burning soft coal smokelessly.

Up-Draft Type: for burning medium and larger sizes of anthracite and bituminous coals and coke, or the buckwheat sizes of anthracite.

Oil, Gas, Stoker Type: for burning hard and soft coals on mechanical stokers or for oil or gas firing.

These three types take care of all fuel requirements. In the main boiler structure they are identical and the features covered in the preceding pages, which make for better combustion and more efficient heat transfer apply to all three with equal force. The only difference between them is inside the firebox.

The three types are illustrated and described beginning on page 7. Ratings and dimensions of each type are also listed.

Steel-built throughout

Fitzgibbons Boilers owe a large part of their exceptional success and high reputation to the fact that they have always been built of steel.

Steel means absolute freedom from leaks, cracking or breakage. Steel assures dependability and durability for the life of the building which the boiler serves. Steel permits of scientific design and simpler manufacturing methods, impossible under the

limits imposed by even the most modern foundry practice.

Every plate and tube in the ZU boiler is made to highest standard specifications, separately tested and certified. All details of construction equal or exceed A. S. M. E. Code and insurance inspection requirement.

Delivered as a complete unit

The ZU boiler comes to the job, a complete unit, all ready to be set in place. You can be sure, therefore, that it is just as sound when installed as when it passed the rigid final test before leaving the factory.

Requires no brick setting

This is another money-saving advantage in first cost and maintenance which the ZU boiler enjoys in common with every other member of the Fitzgibbons line.

Saves Space

The features already explained, which make the boiler more efficient have also resulted in a more compact boiler.

Taking into account overall space requirements, which include the dimensions of the boiler itself, space required for firing and for tube cleaning, which is done from the front, the ZU will be found to have a decided advantage. With floor space, even below ground, at the premium it is today, this advantage alone, is sufficiently important to warrant the selection of the ZU boiler.

Best Interests of Architect and Engineer, Heating Contractor and Owner are Served by the ZU Firebox Boiler

Architect and Engineer

Your interests are best served because the ZU boiler is bound to give your clients the most satisfactory kind of heating service from those two all-important standpoints of performance and low operating cost. You can recommend it with every assurance that it will contribute its share toward maintaining your reputation for commendable achievement in your field.

Heating Contractor

Satisfied clients are your best advertisements. You can be sure that every client for whom you install a ZU boiler will be well satisfied, not only with the quality of heating service, but also with the money saved in fuel bills and maintenance. The ZU also simplifies your installation problems. It requires no assembly on the job and no brick-work. Its absolute reliability frees you of service worries. And you can put it in with the happy feeling that it is going to give efficient

service, even in the hands of below-average firemen. Yet with all its advantages, *first cost is low*. Every modern manufacturing facility coupled with 44 years of boiler building experience, make this low price possible. The ZU makes the kind of installation to which you can unhesitatingly refer prospective clients.

Owner

You are interested primarily in an adequate return on your investment. Proper heating of your building has a great deal to do with this. It helps to sell space in the building and keep it sold. The boiler you want, therefore, is the one that will give you *proper heating at minimum cost*. Even if you are not technically trained, you can hardly fail to appreciate from the explanation in the preceding pages that the ZU boiler will successfully accomplish this, particularly in view of its low first cost. It is the boiler that will give you the largest return per dollar invested from every point of view.

USE the ENCLOSED DATA SHEET for Re- questing Boiler Recommendations

Without obligation we will submit recommendations as to the proper size boiler, or boilers for any contemplated heating project. The separate sheet inserted inside the back cover serves as a convenient means of requesting such a recommendation. Mail this sheet direct to us or to the Representative whose name appears on the cover.

We shall also be glad to provide any further information or data you may desire on the ZU Firebox Boiler.

To Architects and Engineers, Heating Contractors and Owners we offer intelligent, whole-hearted, trustworthy co-operation such as a responsible organization with a background of 44 years of boiler achievement can render.

Our co-operation has proved valuable to the many who have availed themselves of it in the years past. It should prove equally worth-while for you. Capitalize on it. Mailing the enclosed sheet is the first step.

Illustrations and descriptions of all types of ZU Firebox Boiler, together with ratings and dimensions, are given on the following pages.

ZU Firebox Boiler—**SMOKELESS TYPE**

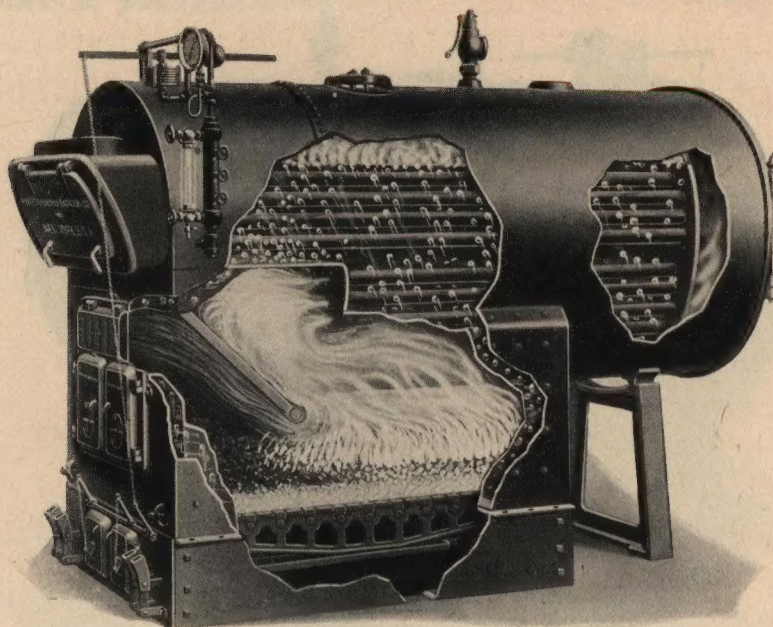


Fig. 4

In addition to the features covered in the preceding pages, this boiler *burns soft coal smokelessly*, and with long firing periods. This highly desirable result has been accomplished by the development of the baffle mounted in the firebox as shown in the illustration.

The baffle consists of a substantial high grade refractory, supported and protected at its lower end by a heavy water tube which spans the firebox and is welded at each end to the side water walls.

Fresh coal is introduced on the front part of the grate under the baffle. Here the volatile gases are distilled from the coal and thoroughly mixed with secondary air introduced above the fire door. These gases as they whirl out from under the baffle are forced into intimate mixture with the swiftly moving high temperature gases which rise from the incandescent coke on the rear part of the grate and sweep forward toward and over the baffle, being deflected from the rear and side walls of the firebox and the under surface of the fire tube cylinder extension.

In this way complete combustion of the volatile gases is assured while they are still

in the firebox resulting, therefore, in smokeless operation. This boiler will satisfy the most stringent smoke regulations.

Another excellent feature,—the baffle is removable. This makes it possible to convert the boiler, easily and quickly, into the hard-coal or oil, gas and stoker type. The user is, therefore, able to change readily from one fuel to another, should circumstances make it advisable or desirable.

Soft coal is a desirable fuel because it is inexpensive and readily available. The ZU Smokeless Boiler makes possible its burning with highest efficiency and a complete absence of objectionable features.

Grate

The rocking grate described on page 8 is supplied with this boiler. It is supported entirely independent of the boiler.

Fire tools, steam trimmings, etc.

Following are included with each boiler: fire tools consisting of hoe, poker, slice bar, flue brush and rod; damper in smoke uptake; steam gauge; water column trimmed; safety valve; damper regulator.

For ratings and specifications see page 10. For dimensions see page 11.

ZU Firebox Boiler—UPDRAFT TYPE

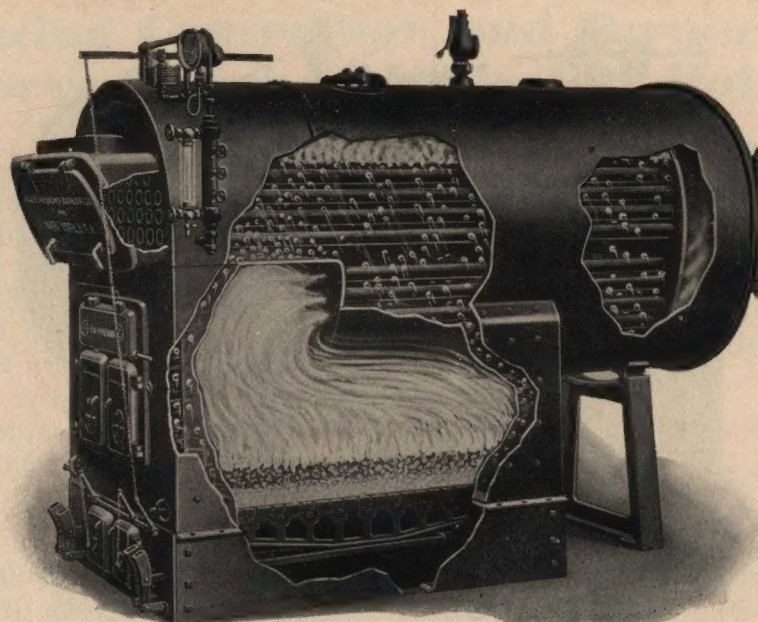


Fig. 5

This boiler is the same as the smokeless type with the exception that the baffle in the firebox is omitted.

The rocking grate shown at the right below is standard equipment. It handles the medium and larger sizes of anthracite, bituminous coals and coke. The dumping grate, which handles the buckwheat sizes of anthracite, is furnished specially where these sizes are to be burned.

Both grates are expressly designed and ideally suited for burning the respective coals for which they are intended.

For ratings and specifications see page 10.

For dimensions see page 11.

Fig. 6
Dumping Grate



Grate sections are made of heat-resisting cast iron, machine molded and machine fitted, and sections of the same type of grate are interchangeable. They are entirely independent of the boiler and are easy to get at and to replace.

Firetools, steam trimmings, etc.

Following are included with each boiler: fire tools consisting of hoe, poker, slice bar, flue brush and rod; damper in smoke uptake; steam gauge; water column trimmed; safety valve; damper regulator.

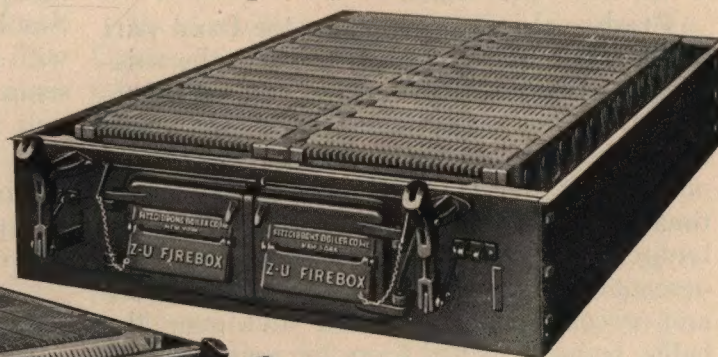


Fig. 7
Rocking Grate

ZU Firebox Boiler—OIL, GAS, STOKER TYPE

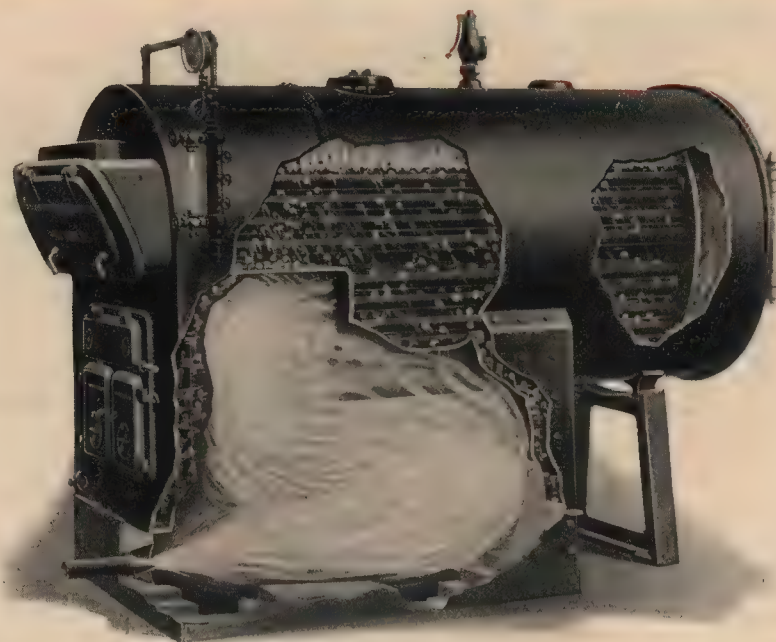


Fig. 8

The design of this boiler makes it particularly effective for oil or gas or mechanical stoker firing.

The oil burner application is shown in the illustration. Oil and air mixture is directed from front to rear. From the rear wall and the under surface of the fire tube cylinder extension and the side walls, it whirls back to the front of the firebox.

The long front-to-rear-to-front sweep in the extra large combustion chamber gives the oil vapor mixture plenty of time to burn freely and completely in suspension.

The high combustion efficiency, the added percentage of direct heating surface and the strong, positive thermo-syphonic water circulation, explained on pages 3 and 4, make possible high ratings and the full utilization of the higher temperatures developed in oil burning.

The remarkably quick "pick-up" of the heating load, which is an outstanding feature of this boiler, is especially valuable in oil

burner service because of the intermittent character of the operation.

The same reasons which make the boiler so well suited for oil burners, apply with equal force to its effectiveness with gas burners and mechanical stokers.

The construction of the boiler also lends itself readily to the installation of either oil or gas burners or stokers. This can be appreciated from a glance at the illustration above.

The rear stand, it will be noted, is full length and, therefore, requires no brick foundation. The same is true in the case of the Smokeless and Updraft types. This is another item which simplifies installation and reduces its cost.

Fire tools, steam trimmings, etc.

Following are included with each boiler of this type: flue brush and rod; steam gauge; water column trimmed; safety valve; damper regulator.

For ratings and specifications see page 10. For dimensions see page 11.

RATINGS and SPECIFICATIONS

ZU Firebox Boiler—Smokeless Type

Boiler Number.....	V40	V45	V50	V55	V65	V75	V85	V95	V110	V120	V130	V150	V170	V185	V200	V220	V240	V270	V300	V340
Rating—steam.....sq. ft.	4000	4500	5000	5500	6500	7500	8500	9500	11000	12000	13000	15000	17000	18500	20000	22000	24000	27000	30000	34000
Rating—hot water.....sq. ft.	6400	7200	8000	8800	10400	12000	13600	15200	17500	19200	20800	24000	27200	29600	32000	35200	38500	43200	48000	54500
Heating surface.....sq. ft.	306	330	380	406	490	550	630	700	790	875	950	1075	1275	1350	1510	1645	1785	1980	2160	2480
Grate area.....sq. ft.	12.5	12.5	14.0	14.5	16.3	18.0	20.6	22.6	24.6	25.5	27.7	30.0	30.8	33.3	36.7	39.5	40.0	43.0	46.5	46.5
Width boiler.....in.	42	42	42	48	48	48	54	54	54	60	60	60	66	66	72	72	78	78	84	84
Length boiler.....ft.-in.	7-2	7-8	8-11	7-9	9-0	10-0	9-3	10-3	11-3	10-4	10-11	12-1	12-1	13-1	12-2	13-2	12-5	13-5	12-4	13-10
Firebox width.....in.	36	36	36	42	42	42	48	48	48	54	54	54	60	60	66	66	72	72	78	78
Firebox length.....in.	50	50	56	50	56	62	62	68	74	68	74	80	74	80	80	86	80	86	86	86
Firebox height.....in.	38	38	38	40	40	40	45	45	45	46	46	46	53	53	57	57	61	61	62	62
Diameter stack—one boiler.....in.	18	20	24	24	24	26	26	26	28	28	30	30	32	32	34	34	36	36	40	42
Diameter breeching—one boiler.....in.	20	22	26	26	26	28	28	28	30	30	30	32	32	34	34	36	36	40	40	42
Height stack—one boiler.....ft.	55	60	55	60	65	65	65	65	60	75	80	75	80	80	85	90	100	100	100	110
Diameter stack—two boilers.....in.	26	30	32	32	32	36	36	36	40	40	40	42	42	46	46	48	48	54	54	56
Diameter breeching—two boilers.....in.	28	32	34	34	34	40	40	40	44	44	44	46	46	50	50	52	52	56	56	58
Height stack—two boilers.....ft.	65	70	65	70	75	75	75	75	75	85	80	80	90	85	95	100	110	115	125	125
Approximate weight.....lbs.	5200	5400	6100	6800	8000	8800	9800	10800	11900	12700	13400	14300	15000	17000	18500	20000	21800	23200	25000	27000

Dimensions of these boilers are given on page 11.

ZU Firebox Boiler—Updraft Type

Boiler Number.....	D40	D45	D50	D55	D65	D75	D85	D95	D110	D120	D130	D150	D170	D185	D200	D220	D240	D270	D300	D340
Rating—steam.....sq. ft.	4000	4500	5000	5500	6500	7500	8500	9500	11000	12000	13000	15000	17000	18500	20000	22000	24000	27000	30000	34000
Rating—hot water.....sq. ft.	6400	7200	8000	8800	10400	12000	13600	15200	17500	19200	20800	24000	27200	29600	32000	35200	38500	43200	48000	54500
Heating surface.....sq. ft.	306	330	380	406	490	550	630	700	790	875	950	1075	1275	1350	1510	1645	1785	1980	2160	2480
Grate area.....sq. ft.	12.5	12.5	14.0	14.5	16.3	18.0	20.6	22.6	24.6	25.5	27.7	30.0	30.8	33.3	36.7	39.5	40.0	43.0	46.5	46.5
Width boiler.....in.	42	42	42	48	48	48	54	54	54	60	60	60	66	66	72	72	78	78	84	84
Length boiler.....ft.-in.	7-2	7-8	8-11	7-9	9-0	10-0	9-3	10-3	11-3	10-4	10-11	12-1	12-1	13-1	12-2	13-2	12-5	13-5	12-4	13-10
Firebox width.....in.	36	36	36	42	42	42	48	48	48	54	54	54	60	60	66	66	72	72	78	78
Firebox length.....in.	50	50	56	50	56	62	62	68	74	68	74	80	74	80	80	86	80	86	86	86
Firebox height.....in.	38	38	38	40	40	40	45	45	45	46	46	46	53	53	57	57	61	61	62	62
Diameter stack—one boiler.....in.	18	20	24	24	24	26	26	26	28	28	30	30	32	32	34	34	36	36	40	42
Diameter breeching—one boiler.....in.	20	22	26	26	26	28	28	28	30	30	30	32	32	34	34	36	36	40	40	42
Height stack—one boiler.....ft.	55	60	55	60	65	65	65	65	60	75	80	75	80	80	85	90	100	100	100	110
Diameter stack—two boilers.....in.	26	30	32	32	32	36	36	36	40	40	40	42	42	46	46	48	48	54	54	56
Diameter breeching—two boilers.....in.	28	32	34	34	34	40	40	40	44	44	44	46	46	50	50	52	52	56	56	58
Height stack—two boilers.....ft.	65	70	65	70	75	75	75	75	75	85	80	80	90	85	95	100	110	115	125	125
Approximate weight.....lbs.	5200	5400	6100	6800	8000	8800	9800	10800	11900	12700	13400	14300	15000	17000	18500	20000	21800	23200	25000	27000

Dimensions of these boilers are given on page 11.

ZU Firebox Boiler—Oil, Gas, Stoker Type

Boiler Number.....	M48	M54	M60	M66	M78	M90	M102	M119	M130	M140	M155	M180	M200	M220	M230	M250	M270	M310	M340	M390
Rating—steam.....sq. ft.	4800	5400	6000	6600	7800	9000	10200	11400	13000	14000	15500	18000	20000	22000	23000	25000	27000	31000	34000	39000
Rating—hot water.....sq. ft.	7790	8600	9600	10500	12500	14400	16300	18200	20400	22400	24800	28800	32000	35200	36800	40000	43300	49700	54500	62500
Heating surface.....sq. ft.	306	330	380	406	490	550	630	700	790	875	950	1075	1275	1350	1510	1645	1785	1980	2160	2480
Grate area.....sq. ft.	42	42	42	48	48	48	54	54	54	60	60	60	66	66	72	72	78	78	83	84
Width boiler.....in.	7-2	7-8	8-11	7-9	9-0	10-0	9-3	10-3	11-3	10-4	10-11	12-1	12-1	13-1	12-2	13-2	12-5	13-5	12-4	13-10
Length boiler.....ft.-in.	36	36	36	42	42	42	48	48	48	54	54	54	60	60	66	66	72	72	78	78
Firebox width.....in.	50	50	56	50	56	62	62	68	74	68	74	80	74	80	80	86	80	86	86	86
Firebox length.....in.	38	38	38	40	40	40	45	45	45	46	46	46	53	53	57	57	61	61	62	62
Firebox height.....in.	18	20	24	24	24	26	26	26	28	28	28	30	30	32	32	34	34	38	38	40
Diameter stack—one boiler.....in.	20	22	26	26	26	28	28	28	30	30	30	32	32	34	34	36	36	40	40	42
Diameter breeching—one boiler.....in.	55	60	55	60	65	65	65	65	70	75	80	75	80	80	85	90	100	100	100	100
Diameter stack—two boilers.....ft.	26	30	32	32	32	36	36	36	40	40	40	42	42	46	46	48	48	54	54	56
Diameter breeching—two boilers.....in.	28	32	34	34	34	40	40	40	44	44	44	46	46	50	50	52	52	56	56	58
Height stack—two boilers.....ft.	65	70	65	70	75	65	75	75	75	85	80	80	90	85	95	100	110	115	125	125
Approximate weight.....lbs.	4800	4900	5500	6200	7200	8000	8800	9700	10800	11600	12200	13000	13600	15500	17000	18200	20000	21300	23000	25000

Dimensions of these boilers are given on page 11.

DIMENSIONS —ZU Firebox Boiler— ALL TYPES

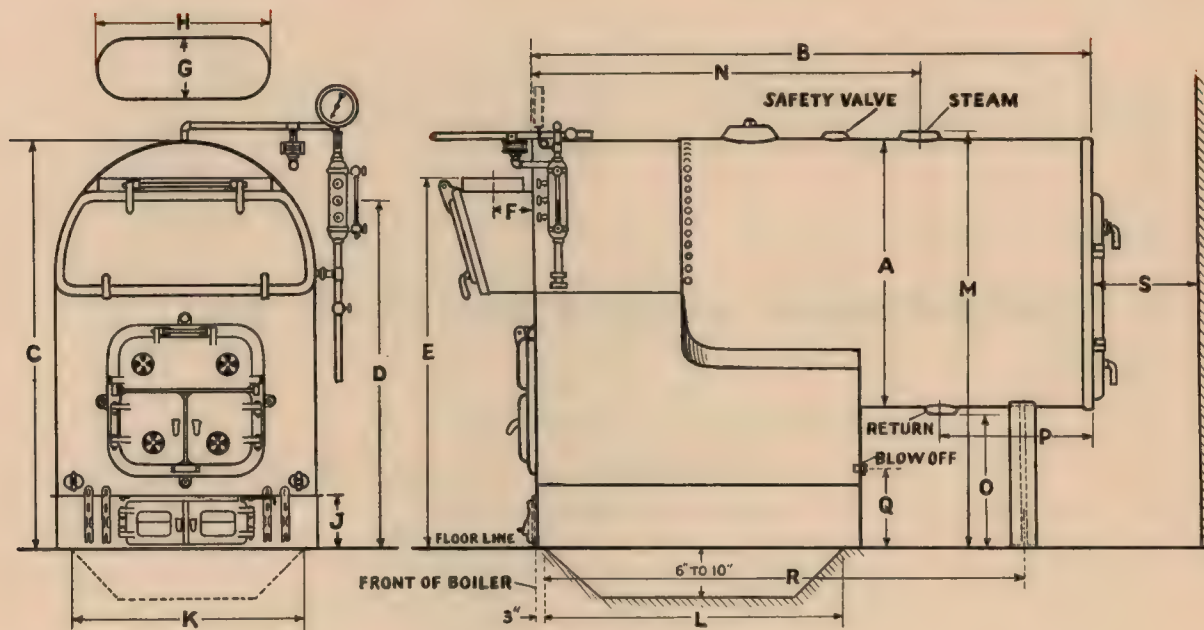


Fig. 9

Boiler Number—Smokeless Type	V40	V45	V50	V55	V65	V75	V85	V95	V110	V120	V130	V150	V170	V185	V200	V220	V240	V270	V300	V340
Boiler Number—Updraft Type	D40	D45	D50	D55	D65	D75	D85	D95	D110	D120	D130	D150	D170	D185	D200	D220	D240	D270	D300	D340
Boiler Number—Oil, Gas, Stoker Type	M48	M54	M60	M66	M78	M90	M102	M114	M130	M140	M155	M180	M200	M220	M230	M250	M270	M310	M340	M390
A—Diameter.....in.	42	42	42	48	48	48	54	54	54	60	60	60	66	66	72	72	78	78	84	84
B—Length.....ft.-in.	7-2	7-8	8-11	7-9	9-0	10-0	9-3	10-3	11-3	10-4	10-11	12-1	12-1	13-1	12-2	13-2	12-5	13-5	12-4	13-10
C—Height overall from floor line.....ft.-in.	72½	72½	72½	80½	80½	80½	86½	86½	86½	95½	95½	95½	103½	103½	111½	111½	117½	117½	123½	123½
D—Water line.....in.	63	63	63	69	69	69	74	74	74	82	82	82	89	89	96	96	100	100	105	105
E—Height smoke uptake.....in.	68	68	68	74	74	74	79	79	79	87	87	87	94	94	101	101	105	105	110	110
F—Location smoke uptake.....in.	7	7	7	7	7	7	7½	7½	7½	9	9	9	9½	9½	10	10	10	10	11	11
G—Width smoke uptake.....in.	10	10	10	10	10	10	11	11	11	14	14	14	15	15	16	16	16	16	18	18
H—Length smoke uptake.....in.	24	24	24	32	32	32	34	34	34	40	40	40	40	40	46	46	52	52	58	58
J—Height ashpit base.....in.	12	12	12	12	12	12	12	12	12	15	15	15	15	15	15	15	15	15	15	15
K—Width ashpit depression.....in.	36	36	36	42	42	42	48	48	48	53	53	53	59	59	65	65	71	71	77	77
L—Length ashpit depression.....in.	49	49	55	49	55	61	61	67	73	67	73	79	73	79	85	85	79	85	85	85
Size safety valve opening.....in.	2	2	2	2½	2½	2½	3	3	3½	3½	3½	4	4	4	4½	4½	2-3	2-3	2-3	2-3
Size steam opening.....in.	6	6	6	6	6	6	8	8	8	8	8	8	8	8	8	8	10	10	10	10
M—Height steam opening.....in.	74	74	74	82	82	82	88	88	88	97	97	97	105	105	113	113	119	119	125	125
N—Location steam opening.....in.	60	67	75	67	75	86	75	86	98	86	92	100	106	112	106	112	106	112	106	118
Size return opening.....in.	4	4	4	4	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6	6
O—Height return opening.....in.	29	29	29	31	31	31	30½	30½	30½	33½	33½	33½	35½	35½	37½	37½	37½	37½	37½	37½
P—Location return opening.....in.	20	24	24	24	24	24	28	28	28	28	28	28	30	30	30	30	32	32	32	32
Size blow off.....in.	1½	1½	1½	1½	1½	1½	2	2	2	2	2	2	2	2	2	2	2½	2½	2½	2½
Q—Height blow off.....in.	14	14	14	14	14	14	14½	14½	14½	17½	17½	17½	17½	17½	17½	17½	17½	17½	17½	17½
R—Location of rear stand.....ft.-in.	5-11	6-6	7-9	6-6	7-9	8-9	8-9	8-9	9-9	8-9	9-4	10-6	10-6	11-6	10-6	11-6	10-6	11-6	10-6	12-0
S—Allow to open rear door.....in.	24	24	24	27	27	27	30	30	30	33	33	33	36	36	39	39	42	42	45	45
Approximate covering surface.....sq. ft.	98	105	116	126	142	155	166	180	193	198	210	228	256	272	280	300	318	335	334	368

FITZGIBBONS BOILER COMPANY, Inc.,

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Request for Boiler Recommendation.

Date_____

Gentlemen:

Without obligation, please submit your recommendation as to boilers which will most efficiently and economically handle the following estimated load.

Cast Iron Column Radiation heating load_____sq. ft.

Cast Iron Wall Radiation heating load_____sq. ft.

Pipe Coil heating load_____sq. ft. (or_____lineal ft.
and diameter of pipe coils_____.)

Fan, Unit heater, or other indirect heating loads_____
(Give number, size,

and manufacturer's catalog designation of all units.)

Hot water supply load_____gals. per hour

Miscellaneous Steam Loads_____
(Give as much information as possible, such

as required steam pressure, steam consumption, etc. Use back of sheet if more space is required.)

Kind of fuel which will be used_____

Following is a brief description of the building for which these boilers are intended:

Type and size of building_____

Dimensions of boiler room: Height_____, length_____, width_____

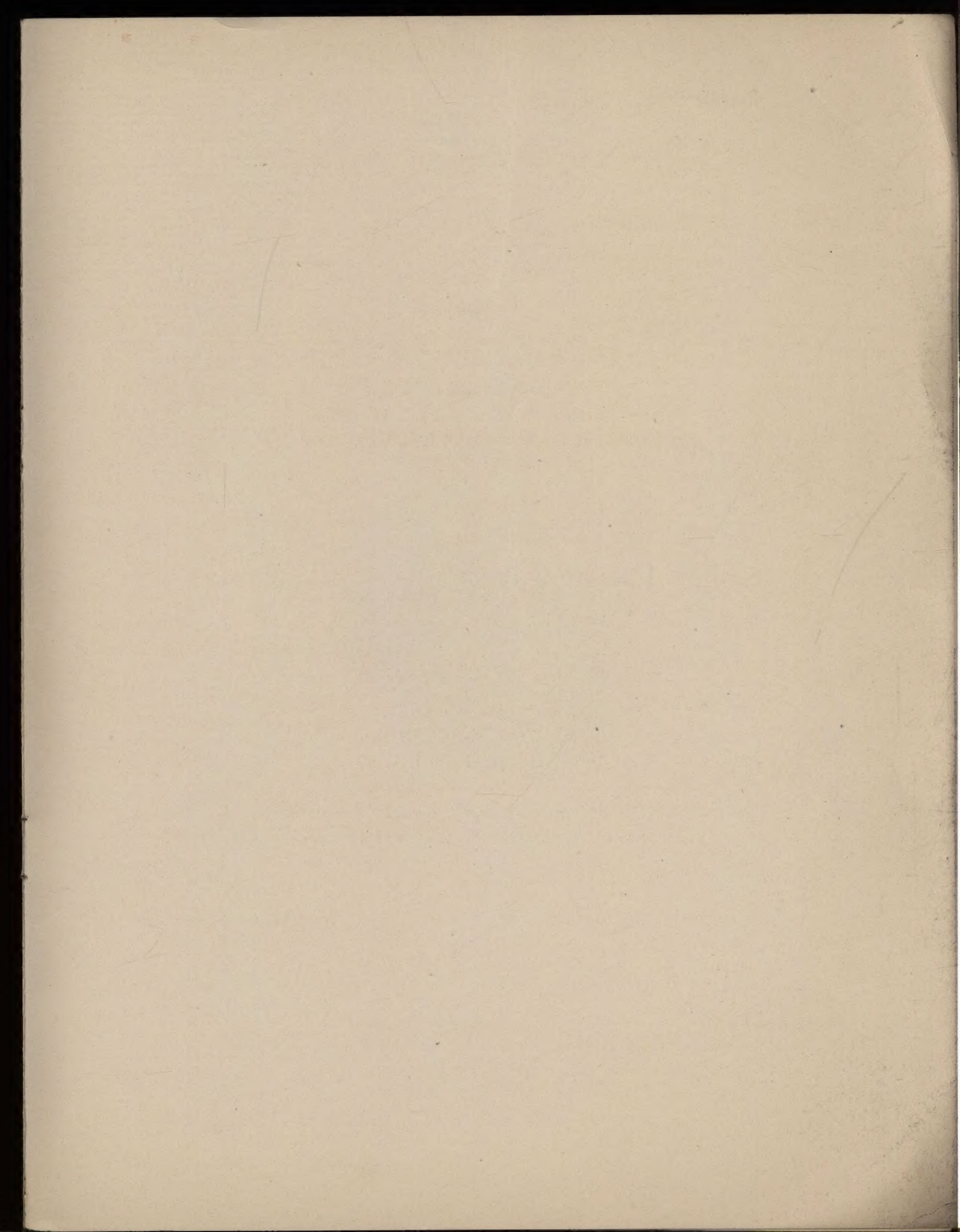
Company or Firm:_____

Address_____

City_____State_____

By Mr._____Position_____

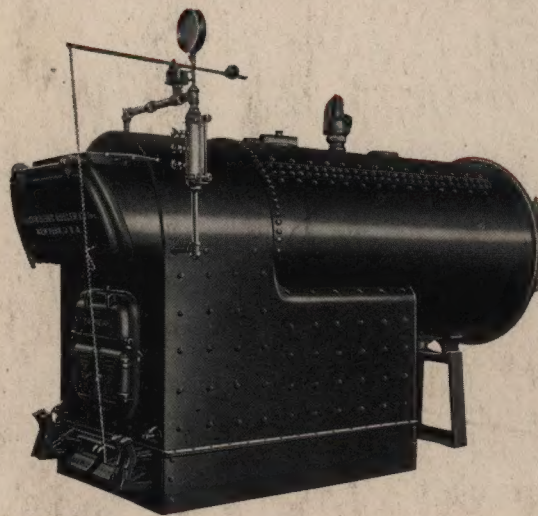
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Z U FIREBOX BOILER

STEEL HEATING BOILER

for Steam or Hot Water Heating
**Smokeless, Updraft, Oil, Gas, and
Stoker Types**



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